Listing of Claims:

1. (Previously Amended) A non-asphaltic underlayment comprising:

a glass fiber-based substrate in which a first surface thereof is directly adhered to a breathable thermoplastic film having a minimum thickness of 2 mils, the breathable thermoplastic film comprises a thermoplastic polyurethane blended with ethylene methacrylate polymer, wherein the ethylene methacrylate polymer acts as an adhesion improvement component that improves adhesion between the breathable thermoplastic film and the glass fiber-based substrate, said breathable thermoplastic film imparts water-resistance to the underlayment while maintaining breathability thereof, the breathable thermoplastic film having a minimum moisture vapor transmission rate of greater than about 3 perms.

- 2. (Previously Amended) The non-asphaltic underlayment of claim 1 further comprising a skid-resistance component blended into the breathable thermoplastic film, the skid-resistance component comprising at least 1-10% of ethyl-vinyl acetate or maleic anhydride grafted ethyl-vinyl acetate.
- 3. (Previously Amended) The non-asphaltic underlayment of claim 1 further comprising a second breathable thermoplastic film located on a second surface of the glass fiber-based substrate.
- 4. (Previously Amended) The non-asphaltic underlayment of claim 1 wherein the substrate is woven or non-woven.
- 5. (Previously Amended) The non-asphaltic underlayment of claim 4 wherein the substrate is a non-woven glass-fiber based substrate.

Appl. No. 10/702,689 Amdt. Dated November 18, 2011 Reply to Office Action of October 12, 2011	
6. (Cancelled).	
7. (Cancelled).	
8. (Cancelled).	
9. (Original) The resubstrate has a thickness from about 5 to all	non-asphaltic underlayment of claim 1 wherein the bout 60 mils.
10. (Cancelled)	
11. (Cancelled)	
12. (Previously Amended) The r	on-asphaltic underlayment of claim 1 wherein the
breathable thermoplastic film has a thickne	ss of about 2 to about 10 mils.
13. (Cancelled)	
14. (Cancelled)	
15. (Cancelled)	
16. (Previously Amended) The r	on-asphaltic underlayment of claim 1 further
comprising at least one of a water repellent	material, an algaecide, an herbicide, an antifungal
material, a surface friction agent, a flame retardant, or a coloring dye.	

The non-asphaltic underlayment of claim 1 wherein the

17. (Original)

underlayment is a base sheet of a peel and stick roofing product.

18. (Previously Amended) A non-asphaltic underlayment comprising a substantially non-water-resistant polypropylene substrate in which at least a top surface thereof is directly adhered to a polyurethane based thermoplastic film, said polyurethane based thermoplastic film imparts water-resistance to the underlayment while maintaining breathability of the underlayment, the breathable thermoplastic film having a minimum moisture vapor transmission rate of 3 perms or greater the polyurethane based thermoplastic film being blended with about 40 to 60% ethylene methacrylate polymer to improve adhesion between the polyurethane based thermoplastic film and the substantially non-water-resistant polypropylene substrate.

19. (Withdrawn) A method of manufacturing a non-asphaltic underlayment comprising applying a breathable thermoplastic film selected from the group consisting of a polyurethane based thermoplastic film, an ethylene-methacrylate or ethylene acrylic acid based thermoplastic film, a mirco-porous polyolefinic thermoplastic film, a micro-porous polyester thermoplastic film and combinations or multilayers thereof to at least one surface layer of a substrate, said breathable thermoplastic film imparts water-resistance to the substrate while maintaining the breathability of the substrate.

- 20. (Withdrawn) The method of claim 19 wherein the applying includes die extrusion, air spraying, dip coating, knife coating, roll coating or a film application.
- 21. (Withdrawn) The method of claim 19 wherein the applying comprises lamination.
- 22. (Withdrawn) The method of claim 19 wherein the applying comprises chemical bonding, mechanical bonding, thermal bonding or any combination thereof.

23. (Withdrawn) A roofing system comprising a non-asphaltic, breathable

underlayment and one or more shingles laid-up on an uppermost layer of the underlayment, said

underlayment comprising a woven or non-woven substrate in which at least one surface thereof

comprises a breathable thermoplastic film selected from the group consisting of a polyurethane

based thermoplastic film, an ethylene-methacrylate or ethylene acrylic acid based thermoplastic

film, a mirco-porous polyolefinic thermoplastic film, a micro-porous polyester thermoplastic

film and combinations or multilayers thereof disposed thereon, said breathable thermoplastic

film imparts water-resistance to the substrate without negatively impacting breathability of the

substrate.

24. (Withdrawn) A roofing system comprising a non-asphaltic, breathable

underlayment and one or more shingles laid-up on an uppermost layer of the underlayment, said

underlayment comprising a woven or non-woven substrate in which at least one surface thereof

comprises a polyurethane based thermoplastic film, disposed thereon, said polyurethane

thermoplastic film imparts water-resistance to the substrate while maintaining breathability as

defined in ASTM E96 standard.

25. (Withdrawn) The roofing system of claim 24 wherein the one or more

shingles include asphalt-containing single or multi-ply shingles.

26. (Withdrawn) A breathable and yet water-resistant coating selected from

the group consisting of a polyurethane based thermoplastic film, an ethylene-methacrylate or

ethylene acrylic acid based thermoplastic film, a mirco-porous polyolefinic thermoplastic film, a

micro-porous polyester thermoplastic film and combinations or multilayers thereof over a woven

or a non-woven substrate.

8 of 10

2005024 v1

- 27. (Withdrawn) The breathable and yet water-resistant coating of claim 26 wherein said underlayment forms a seal around any penetrations.
- 28. (Withdrawn) The breathable and yet water-resistant coating of claim 27 wherein said penetrations are the result of securing means.
- 29. (Withdrawn) The breathable and yet water-resistant coating of claim 28 wherein said securing means comprise nails, staples or combinations thereof.
 - 30. (Cancelled)
 - 31. (Cancelled)
 - 32. (Cancelled)
 - 33. (Cancelled)
 - 34. (Cancelled)
 - 35. (Cancelled)
- 36. (Previously Presented) The non-asphaltic underlayment of claim 2 wherein the skid-resistance component is a surface friction agent.
 - 37. (Previously Amended) A non-asphaltic underlayment comprising:
- a breathable thermoplastic film comprising a thermoplastic polyurethane blended with ethylene methacrylate polymer, the ethylene methacrylate polymer acting as an adhesion improvement component; and

a substrate, the substrate having a thickness of about 6 to 60 mils, the substrate being air sprayed with more than two mils but less than 10 mils of the breathable thermoplastic film, wherein the breathable thermoplastic film imparts water-resistance to the underlayment while maintaining breathability thereof as defined in ASTM E96 standard.

- 38. (Previously Presented) The non-asphaltic underlayment of claim 1 further comprising a skid-resistance component blended into the breathable thermoplastic film, the skid-resistance component comprising at least 1-10% of ethyl-vinyl acetate or malefic anhydride grafted ethyl-vinyl acetate.
- 39. (Previously Presented) The non-asphaltic underlayment of claim 1 further comprising a second breathable thermoplastic film air sprayed onto a second surface of the substrate.
- 40. (Previously Presented) The non-asphaltic underlayment of claim 1 wherein the substrate is nonwoven polypropylene.
- 41. (Previously Presented) The non-asphaltic underlayment of claim 1 further comprising a water repellent material, an algaecide, an herbicide, an antifungal material, a surface friction agent, a flame retardant, a coloring dye and combinations thereof.
- 42. (Previously Presented) The non-asphaltic underlayment of claim 1 wherein the underlayment is a base sheet of a peel and stick roofing product.